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## **Claim Amendments**

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- 1. (Previously presented) An apparatus comprising:
- a fuel injector for an internal combustion engine operably connected to a fluid supply system and having a nozzle disposed at a distal end of the fuel injector, wherein said nozzle has a fluid cavity;

at least one discharge port disposed in the nozzle;

an orifice disposed in the nozzle; and

- a pressure sensor adjacent to the orifice, wherein fluid in the fluid cavity is in fluid communication with the pressure sensor, such that the pressure sensor measures fluid pressure.
- 2. (Original) The apparatus of claim 1, wherein the nozzle is mounted to and protrudes into a chamber for the receiving of fluid from the discharge ports.
- 3. (Currently amended) The apparatus of claim 2, wherein the chamber [[is]]simulates a combustion chamber.
- 4. (Original) The apparatus of claim 2, wherein the chamber is pressurized.
- 5. (Original) The apparatus of claim 4, further comprising a pressure control valve operably connected to the chamber.
- 6. (Original) The apparatus of claim 2, further comprising a flow-metering unit operably connected to the chamber.
- 7. (Original) The apparatus of claim 1, wherein the fluid supply system comprises a fluid tank and a fuel pump.
- 8. (Original) The apparatus of claim 1, further comprising a monitoring device attached to the pressure sensor.

- 9. (Original) The apparatus of claim 1, wherein the pressure sensor is a piezoelectric quartz transducer.
- 10-11 (Cancelled)
- 12. (Previously presented) A fuel injector for an internal combustion engine comprising:
- a nozzle disposed at a distal end of the fuel injector and having at least one discharge port;
- a needle slideably mounted inside the fuel injector and the nozzle;
- a fluid cavity disposed in the nozzle;
- a pressure sensor arranged to measure pressure in the fluid cavity; and
- an orifice disposed in the needle and disposed along an outer boundary of the fluid cavity, wherein the pressure sensor is disposed in the orifice.
- 13. (Previously presented) The apparatus of claim 12, wherein the pressure sensor is a piezoelectric quartz transducer.
- 14. (Cancelled)

15. (Previously presented) A method comprising the steps of:

charging a fuel injector for an internal combustion engine with fluid;

discharging the fluid from at least one discharge port in a nozzle disposed at a distallend of the fuel injector;

communicating fluid to a pressure sensor through a first orlfice disposed in the nozzle:

communicating fluid to the pressure sensor through a second orifice in a needle inside the nozzle of the fuel injector; and

measuring fluid pressure near the at least one discharge port with the pressure sensor.

- 16. (Previously presented) The method of claim 15, further comprising the step of containing the fluid discharged from the nozzle in a chamber.
- 17. (Original) The method of claim 16, further comprising the step of controlling the operating pressure of the chamber.
- 18. (Cancelled)
- 19. (Previously presented) The method of claim 15, further comprising the step of measuring the fluid discharge rate after each discharge of fluid from the nozzle of the fuel injector.
- 20. (Previously presented) The method of claim 15, wherein the pressure sensor is a piezoelectric quartz transducer.